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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,249	09/30/2003	Lester F. Ludwig	2152-3018	6374
22242 7590 06/02/2008 FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406				
EXAMINER FLETCHER, MARLON T				
ART UNIT 2837		PAPER NUMBER		
MAIL DATE 06/02/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/676,249

**Applicant(s)**

LUDWIG, LESTER F.

**Examiner**

Marlon T. Fletcher

**Art Unit**

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-102 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-102 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-102 rejected under 35 U.S.C. 102(e) as being anticipated by Hasebe (5,990,408).

Hasebe. discloses a multi-channel signal processing system comprising: a transducer signal interface (2, 3) for receiving a plurality of distinct incoming audio electrical signals produced in response to vibrations of an associated plurality of vibrating elements; a plurality of signal processors (12-14, 19), wherein each processor of said plurality of signal processors receives a selected one of said plurality of incoming audio electrical signals, wherein each processor of said plurality of signal processors process a received incoming audio electrical signal to produce an audio output signal, wherein said processing of said received incoming audio electrical signal is performed by variably changing one or more signal attributes of said received incoming audio electrical signal (figure 3), wherein said one or more attributes is selected from the group consisting of: pitch, timbre, or timing (column 4, line 30- column 5, line 10; and column 5, line 40 – column 6, line 8); and an output signal interface (23) for providing

said audio output signal for each of said plurality of signal processors. Smith et al. discloses the system, wherein at least one processor (19) of said plurality of signal processors is controlled by an incoming signal processing control signal.

Hasebe discloses the system, wherein each processor of said plurality of signal processors provide said processing according to a selected one of a plurality of pre-programmed processing instructions (column 5, lines 46-56).

Hasebe et al. discloses the system, wherein an incoming signal processing control signal (via control sect 16) is used to select said one of said plurality of pre-programmed mixing instructions; wherein synthesizer mixes (22) the incoming signals.

Hasebe discloses the system, wherein each processor of said plurality of signal processors further process said received incoming audio electrical signal by modulating signal amplitude of said received incoming audio electrical signal (column 4, lines 22-29).

Hasebe discloses the system, wherein at least one of said plurality of vibrating elements is a tunable, fixed-pitch vibrating element (abstract).

Hasebe discloses the system, wherein at least one of said plurality of vibrating elements is a variable-pitch vibrating element (abstract).

Hasebe discloses the system, wherein each processor of said plurality of signal processors dynamically modulates the timbre of said received incoming audio electrical signal; wherein each processor of said plurality of signal processors changes the pitch of said received incoming audio electrical signal; wherein each processor of

said plurality of signal processors changes the timing of said received incoming audio electrical signal (figure 3).

Hasebe discloses the system, wherein said at least one outgoing mixed audio signal comprises a signal of MIDI format (column 7, lines 35-40).

Hasebe discloses the system, wherein said selection is determined by a switch (25).

### ***Response to Arguments***

3. Applicant's arguments filed 1/28/2008 have been fully considered but they are not persuasive.

The applicant argues that there is no audio output. However, there is clearly audio output. As can be seen at element (20), the digital signal is converted into an analog signal for audio output. The applicant argues the understanding of control signals and audio signals. Clearly there is audio input and audio output. Control signals are directly related to audio signals in that the control signal is used to change, control, or output audio signal. What would be the purpose of a musical device that did not output audio or sound or a means to produce sound? There is nothing different from applicant's invention and the prior art. The applicant makes arguments to applications of the references that should be clearly understood. Clearly all of the elements are present. The applicant also argues the feature of variably changing attributes. The elements (12-15) are used to detect and provide data which causes changes to the tone data via element (16), wherein variables changes are made based on the detections

and the corrections to the detections. Therefore, the limitation is met. What would be the purpose of detecting attributes, if no changes are going to be made to the attributes? The answer provides the claim limitation, wherein changes are provided based on the detections.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 571-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTF  
05/28/2008

/Marlon T Fletcher/  
Primary Examiner, Art Unit 2837